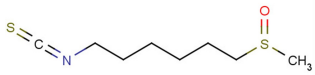
Data Sheet (Cat.No.T15474)

TargetMol
A DRUG SCREENING EXPERT

Hesperin

Chemical Properties

CAS No.:	4430-35-7
Formula:	C8H15NOS2
Molecular Weight:	205.34
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).



Biological Description

Description	Hesperin is a bioactive ingredient present in Japanese horseradish (wasabi). It has been shown to be an activator of Nrf2.
Targets(IC_{50})	Nrf2: None
In vitro	Hesperin is an active compound in wasabi. Whether Hesperin causes cytotoxicity of HUVECs is determined. To study the anti-coagulant and anti-inflammatory properties of Hesperin in HUVECs, in subsequent experiments we used Hesperin is used at concentrations of 0-1 μg/mL. More than 1 μg/mL of Hesperin markedly causes cytotoxicity and morphological alterations [2].
In vivo	Wild-type and Nrf2-null mice are fed the following diets for 12 weeks: 1) control diet, 2) high-fat diet (HFD), 3) HFD plus Hesperin (10 mg/kg/day i.p.), 4) HFD for 6 weeks followed by an iron-supplemented HFD for 6 weeks (HFD/Iron), 5) HFD/Iron plus Hesperin to determine whether Hesperin ameliorates hepatic steatosis and iron accumulation. Hesperin activates Nrf2 and causes phase II enzyme genes but this induction is absent in Nrf2-null mice, showing that Hesperin is a potential activator of the Nrf2/ARE-dependent detoxification pathway. The HFD enhanced hepatic triglycerides in both genotypes and Hesperin suppresses increased hepatic triglycerides in wild-type mice but does not reduce these triglycerides in Nrf2-null mice [1].

Solubility Information

Solubility	DMSO: 50 mg/mL (243.50 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.87 mL	24.35 mL	48.7 mL
5 mM	0.974 mL	4.87 mL	9.74 mL
10 mM	0.487 mL	2.435 mL	4.87 mL
50 mM	0.097 mL	0.487 mL	0.974 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Tanaka Y, et al. 6-Methylsulfinylhexyl isothiocyanate prevents high-fat diet-induced fatty liver but fails to attenuate hepatic iron accumulation in mice. Clin Exp Pharmacol Physiol. 2016 Nov;43(11):1153-1156.
2. Okamoto T, et al. 6-Methylsulfinylhexyl isothiocyanate modulates endothelial cell function and suppresses leukocyte adhesion. J Nat Med. 2014 Jan;68(1):144-53.

Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481